

## CLAIMS

1. A surface protective sheet used for grinding a back surface of a semiconductor wafer, wherein:

one surface of a base sheet is provided with an opening portion having a diameter smaller than an outer diameter of a semiconductor wafer to be stuck, on said opening portion no adhesive layer being formed, and a portion which is provided around the opening portion and on which an adhesive layer is formed.

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2. The surface protective sheet as claimed in claim 1, wherein the base sheet and the adhesive layer are cut to have almost the same diameter as that of a semiconductor wafer to be stuck, and the portion on which an adhesive layer is formed are of almost concentric circles.

3. A method for grinding a semiconductor wafer, comprising:

allowing a semiconductor wafer, on a circuit surface of which bumps are formed, to be in a surface-protected form wherein an adhesive layer having an opening portion with no adhesive corresponding to a portion of the wafer where the bumps are formed and an adhesive portion

corresponding to an outer peripheral portion of the wafer where bumps are not formed is formed and a base sheet is laminated on the adhesive layer so as to cover the opening portion of the adhesive layer,

- 5 placing the semiconductor wafer of the surface-protected form on a fixing table in such a manner that the base sheet faces the fixing table, and grinding a back surface of the semiconductor wafer.

- 10 4. The method for grinding a semiconductor wafer as claimed in claim 3, wherein the semiconductor wafer is allowed to have the surface-protected form by sticking the surface protective sheet of claim 1 or 2 to the circuit surface of the semiconductor wafer.

- 15 5. The method for grinding a semiconductor wafer as claimed in claim 3, wherein the semiconductor wafer is allowed to have the surface-protected form by:
  - sticking the adhesive layer having an opening portion corresponding to a portion of the wafer where bumps are formed and an adhesive portion corresponding to an outer peripheral portion of the wafer where bumps are not formed, to the outer peripheral portion of the
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semiconductor wafer on a circuit surface of which bumps are formed, and

laminating the base sheet on the adhesive layer so as to cover the opening portion of the adhesive layer.

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6. The method for grinding a semiconductor wafer as claimed in claim 3, wherein the height of each bump formed on the circuit surface is 50  $\mu\text{m}$  or more and the bump arranged on the outermost side is positioned at a 10 distance of 2 to 10 mm from the outer periphery of the wafer.

7. The method for grinding a semiconductor wafer as claimed in claim 3, wherein a difference ( $B_t - A_t$ ) 15 between the height ( $B_t$ ) of each bump and the thickness ( $A_t$ ) of the adhesive layer is in the range of -5 to 50  $\mu\text{m}$ .